

Listing of Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Amendment to the Claims:

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1. (Currently amended) An irradiation chamber comprising: a rigid first plate having a first surface and a second surface said second surface having a raised boundary surrounding a plurality of raised partitions; a rigid second plate having a first surface and a second surface, said second surface having a raised boundary surrounding a plurality of raised partitions; wherein the second surface of said rigid first plate is contacted with said second surface of said rigid second plate thereby forming a chamber; said chamber, defined by the raised boundary surrounding the plurality of raised partitions which extend from said second surface of said first plate and said second surface of said second plate, said chamber having a first blood or blood component port and a second blood or blood component port arranged such that during use, the flow of fluid blood or blood components throughout said chamber is assisted by gravity, wherein a plurality of channels are formed by said partitions providing fluid communication with the first port and second port and wherein said first and said second surface are susceptible to irradiation at the same time.

2. (Previously Presented) The irradiation chamber of claim 1 wherein said partitions are essentially evenly spaced apart from each other.

3. (Previously Presented) The irradiation chamber of claim 2 wherein the number of partitions ranges from three to eleven.

4. (Previously Presented) The irradiation chamber of claim 3 wherein the number of partitions is seven.

5. (Previously Presented) The irradiation chamber of claim 2 wherein the channels form a serpentine fluid pathway providing fluid communications between said first and second port.

6. (Previously Presented) The irradiation chamber of claim 5 wherein the first port is on the first surface of the first plate.

7. (Previously Presented) The irradiation chamber of claim 6 wherein the second port is on the first surface of the second plate.

8. ((Previously Presented)) The irradiation chamber of claim 7, wherein the channels formed by the partitions of said plates have a thickness of about 0.04 inches.

9. (Previously Presented) The irradiation chamber of claim 1, wherein the rigid first plate and second plate are made of a material that does not substantially absorb UV radiation having wavelength in the range of 180 to 420 nm.

10. (Previously Presented) The irradiation chamber of claim 9, wherein the rigid first plate and second plate are made of material selected from the group consisting of polycarbonate and acrylic.

11. (Previously Presented) An irradiation chamber of claim 1 wherein said rigid first plate is identical to said rigid second plate.

12. (Currently Amended) A method for forming irradiated blood components comprising: (a) collecting blood from a patient; (b) separating a desired component from said blood; (c) irradiating the desired component to form an irradiated blood product in an irradiation chamber comprising: a rigid first plate having a first surface and a second surface said second surface having a raised boundary surrounding a plurality of raised partitions; a rigid second plate having a first surface and a second surface, said second

surface having a raised boundary surrounding a plurality of raised partitions; wherein the second surface of said rigid first plate is contacted with second surface of said rigid second plate thereby forming a chamber; said chamber, defined by the raised boundary surrounding the plurality of raised partitions which extend from said second surface of said first plate and said second surface of said second plate, said chamber having a first port and a second port arranged such that during use, the flow of fluid throughout said chamber is assisted by gravity, wherein a plurality of channels are formed by said partition providing fluid communication with the first port and second port wherein said irradiation is made to occur through both said first and second surfaces at the same time; and (d) collecting said irradiated blood product.

13. (Previously Presented) The method of claim 12 wherein the irradiated blood product contains cells that have been induced to undergo apoptosis by said irradiation.

14. (Previously Presented) The method of claim 12 further comprising contacting the desired component with a photoactivable agent and irradiating the desired component prior to irradiating said desired component to form an irradiated blood product.

15. (Previously Presented) The method of claim 12 further comprising returning the irradiated blood product to the patient.

16. (Previously Presented) The method of claim 12 further comprising washing the irradiation chamber with less than 1.times. volume of a fluid selected from the group consisting of saline, plasma or combinations thereof to displace any irradiated blood product remaining in the irradiation chamber thereby forming a wash solution.

17. (Previously Presented) The method of claim 16 wherein the wash solution is returned to the patient.

18. (Currently Amended) A method of treating a patient comprising (a) collecting blood from a patient; (b) separating a desired component from said blood on a continuous basis;

(c) contacting the desired component with a photoactivable agent; (d) irradiating the desired component and the photoactivable agent to form an irradiated blood product in an irradiation chamber comprising: a rigid first plate having a first surface and a second surface said second surface having a raised boundary surrounding a plurality of raised partitions; a rigid second plate having a first surface and a second surface, said second surface having a raised boundary surrounding a plurality of raised partitions wherein the second surface of said rigid first plate is contacted with second surface of said rigid second plate thereby forming a chamber; said chamber, defined by the raised boundary surrounding the plurality of raised partitions which extend from said second surface of said first plate and said second surface of said second plate, said chamber having a first port and a second port arranged such that during use, the flow of fluid throughout said chamber is assisted by gravity, wherein a plurality of channels are formed by said partition providing fluid communication with the first port and second port wherein said irradiation is made to occur through both said first and second surfaces at the same time; and (e) returning the irradiated blood product to the patient.

19. (Previously Presented) The method of claim 18, wherein the desired component is buffy coat.

20. (Previously Presented) The method of claim 18, wherein the photoactivable agent is 8-MOP.

21. (Previously Presented) The method of claim 18 wherein the desired component is buffy coat and the photoactivable agent is 8-MOP.